

STAROVEROVA, A.G.; KRUTKOVA, A.S.; RAYKHSHTAT, G.N.; TIKHOMIROVA, L.I.

Epidemiological role of carriers of toxigenous diphtheria
cultures under various epidemiological conditions. Trudy
IEMG no.8:101-112 '61 (MIRA 17:2)

1. Moskovskiy nauchno-issledovatel'skiy institut epidemiologii,
mikrobiologii i gigiyeny (for Staroverova, Krutkova). 2. Sanitarno-
epidemiologicheskaya stantsiya Sverdlevskogo i Kominternovskogo
rayonov (for Raykhshtat, Tikhomirova).

L 00966-66 ET(1)/T/EA(h) IJP(c) A^I

ACCESSION NR: AP5020082

UR/0079/65/035/008/1336/1340
621.794.4 : 546.289 : 546.681/2

AUTHOR: Orlova, G. M.; Tikhomirova, L. I.

TITLE: Chemical etching of semiconductor compounds type A^{IV} and A^{III}B^V in an alkaline solution of potassium ferricyanide

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1336-1340

TOPIC TAGS: etched crystal, germanium semiconductor, gallium compound, gallium arsenide, indium compound, chemical kinetics, semiconductor single crystal, phosphide, antimonide, germanium single crystal

ABSTRACT: The kinetics of chemical etching of single crystals of germanium, gallium phosphide, gallium arsenide, gallium antimonide and indium antimonide was studied in an 0.18 molar solution of potassium ferricyanide in 1.0 molar KOH. The rate of etching w in g-moles/cm²·sec was calculated from the formula

$$w = \frac{\Delta g}{M \cdot \Delta t \cdot S}$$

where Δg is change in sample weight during time Δt in seconds; M is molecular weight;

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and s is sample surface area in cm^2 . The single crystal surfaces were examined with an MIM-7 microscope. The etching was done in non-agitated as well as in agitated (400 rpm) media in the 20-45°C range. The relationship between rate of etching and temperature for gallium phosphide in an alkaline solution of potassium ferricyanide is shown in fig. 1 of the Enclosure. Etching rate as a function of temperature for various other semiconductors is given in fig. 2 of the Enclosure. The rate of heterogeneous chemical reaction is used to control etching of gallium phosphide. Etching of germanium, gallium arsenide and gallium antimonide is controlled by diffusion. The ionic character increases in the following sequence: $\text{InSb} > \text{GaSb} > \text{GaAs} > \text{GaP}$. "The authors thank N. A. Goryunova for supplying the single crystals of gallium phosphide and V. S. Vekshina for supplying the single crystals of gallium antimonide." Orig. art. has: 4 figures, 1 table.

ASSOCIATION: Leningradskiy gosudrastvennyy universitet (Leningrad State University)

SUBMITTED: 02Jul64

ENCL: 02

SUB CODE: GC, SS

NO REF SOV: 010

OTHER: 005

Card 2/4

L 0096-66

ACCESSION NR: AP5020082

ENCLOSURE: 01

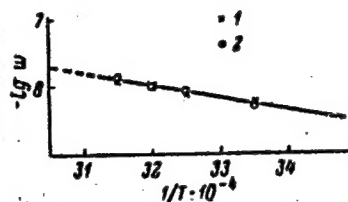


Fig. 1. Relationship between $\lg w$ and $1/T$ for etching of gallium phosphide in an alkaline solution of potassium ferricyanide: 1--agitated solution; 2--quiet solution.

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L 00966-66

ACCESSION NR: AP5020082

ENCLOSURE: 02

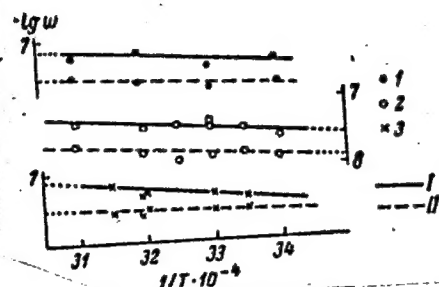


Fig. 2. Log w as a function of $1/T$ for etching of germanium (1), gallium arsenide (2) and gallium antimonide (3) in an alkaline solution of potassium ferricyanide: I--agitated solution; II--quiet solution.

Card 4/4

Tikhomirova, L.I.

SAMSONOV, G.V.; POPOVA, N.M.; TIKHOMIROVA, L.I.

Preparation of cerium monosulfide. Zhur. prikl. khim. 31 no.2:
153-157 # '58. (MIRA 11:5)

(Cerium sulfides)

"APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2

APPROVED FOR RELEASE: 07/16/2001

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L 57865-65
ACCESSION NR: AP5017452

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NO REF SOV: 002

Card 212

22

22406

S/035/61/000/005/002/042
A001/A101

3,1520

AUTHORS: Vinogradova, R.G., Rozhnova, I.A., Tikhomirova, L.N.

TITLE: Harmonic analyzers of frequency spectrum of non-periodic electric oscillations

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 5, 1961, 21, abstract 5A148 ("Sb. rabot po vopr. elektromekhan. In-t elektromekhan. AN SSSR", 1960, no. 4, 276 - 281)

TEXT: The authors describe briefly the eight-channel harmonic analyzer (electric circuit diagrams are presented) which was constructed at VIM(IEM). of AS USSR for studying the frequency spectrum of stellar scintillation with the purpose of determining the optimum frequency of light flux modulation in the automatic star-guidance system of telescopes. This instrument, together with the MPO-2 (MPO-2) oscillograph, provides for the wide possibilities of studying various fluctuation processes. The mean, maximum and envelope amplitudes of harmonics can be determined on the basis of oscillograms. The time of frequency spectrum analysis amounts to a few tenths of a second. The error of the instrument (measurements) does not exceed 10%. ✓C

S. Zhuravlev

[Abstracter's note: Complete translation]
Card 1/1

KOBULASHVILI, Sh.N.; ROTENBERG, A.G.; TIKHOMIROVA, L.N.; KAMINARSKAYA, A.K.;
KOTOVICH, A.G.

Quick-freeze GKA-2 apparatus mounted on a gravity conveyor. Khol.tekh.
39 no.4:4-11 J1-Ag '62. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Kobulashvili, Rotenberg, Tikhomirova, Kaminarskaya).
2. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshche-sushil'noy / promyshlennosti (for Kotovich).

L 38960-66 EWT(d)/EWT(1)/EWP(k)/EWP(h)/T-2/EWP(v)/EWP(1) WW
 ACC NR: AP6020031 (N) SOURCE CODE: UR/0066/66/000/002/0022/0025

AUTHOR: Rotenberg, A. G. (Candidate of technical sciences); Tikhomirova, L. N. 24

ORG: All-Union Scientific-Research Institute of the Refrigeration Industry (Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti) 23

TITLE: Back-pressure valves with a damper device 14, 23

SOURCE: Kholodil'naya tekhnika, no. 2, 1966, 22-25

TOPIC TAGS: valve, refrigeration equipment , REFRIGERATION ENGINEERING

ABSTRACT: The authors describe back-pressure valves which are mounted on the heating pipelines of the compressors of refrigerating devices. They serve to prevent the overflow of ammonia from the high pressure side to the low pressure side and to eliminate the escape of ammonia from the high-pressure line into the atmosphere if the compressor breaks down. The back-pressure valves utilize a polyfluoroethylene resin seal and piston damping. Two types of back-pressure valves are described: 1) direct-flow and 2) angular back-pressure valves. The direct-flow back-pressure valves can be installed in horizontal and vertical positions and the angular back-pressure valves only in a vertical position. Tests carried out on a stand at different pressures showed that closing of the valve upon back flow of the

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ACC NR: AP6020031

medium was accompanied by its negligible escape into the atmosphere. At an initial pressure in the vessel from 0.5 to 2 gauge atm. the drop of pressure owing to escape of the medium did not exceed 0.05 kg/cm². The authors recommend the direct-flow back-pressure valves for wide use in refrigerating devices since they are smaller and lighter than the angular valves and can be installed horizontally and vertically. Orig. art. has: 1 table and 4 figures.

SUB CODE: 13/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

Card

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TIKHOMIROVA, L.P.; TOLOCHKO, A.I.

Determination of the density of coke. Standartizatsia 28 no.7:
59-61 J1 '64.
(MIRA 17:11)

9,3277

S/194/61/000/011/069/070
D271/D302

AUTHORS:

Prokopenko, Z.I. and Tikhomirova, L.P.

TITLE:

Pulse-code modulation converters

PERIODICAL:

Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 11, 1961, 8, abstract 11 L40 (Tr. nauchno-tekhn.
konferentsii Leningr. elektrotekhn. in-ta svyazi,
no. 1, L., 1961, 67-72)

TEXT:

The conversion of a continuous signal into a pulse-code represents a complex of the several following operations: Quantization of the signal in time, quantization of the signal level, and coding of the level. Level quantization and coding are always done together. Three methods of coding are used: 1) Counting; 2) weighing, or the method of step compensation; 3) counting of pulses in a certain time interval by means of a binary counter. At the receiving end of the system a decoder reconstitutes a continuous signal out of the pulse-code. The block diagram is discussed of a

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Pulse-code modulation converters

S/194/61/000/011/069/070
D271/D302

coder based on the weighing method and of a decoder with a 7-digit shift register. 2 references. [Abstracter's note: Complete translation]

✓
B

Card 2/2

AUERMAN, L.Ya.; SUVOROVA, M.A.; TIKHOMIROVA, L.V.

Determining the compressibility of bread crumb on a penetrometer.
Izv. vys ucheb. zav.; pishch. tekhn. no. 115-158 '60. (MIRA 14:8)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti, Kafedra tekhnologii khlebopekarnogo proizvodstva.
(Bread) (Penetrometers)

TIKHOMIROVA, L.V.

Characteristics of the diurnal variation of air temperature
in the southeast of Western Siberia. Trudy NIIAK no.33:
80-88 '65. (MIRA 18:12)

SOTSKAYA, V.P.; SMIRNOV, V.A.; TIKHOMIROVA, L.Ya.

Effect of pH on alcohol yield in the thermal treatment of
crushed raw materials. Izv. vys. ucheb. zav.; pishch. tekhn.
no.6:67-69 '63. (MIRA 17:3)

1. Leningradskiy mezhotraslevoy nauchno-issledovatel'skiy
institut pishchevoy promyshlennosti, laboratoriya tekhnologii
spirta.

TIKHOMIROVA, L.Ye., uchitel'nitsa.

Young rabbit breeders of the Losino-Petrovskii secondary school.
Est. v shkole no.2:72-73 Mr-Apr '56. (MLRA 9:7)
(Nature study) (Rabbits)

L 28010-66 ENT(m)

ACC NR: AP6018198

SOURCE CODE: UR/0241/65/010/012/0030/0034

AUTHOR: Liberman, A. N.; Vaynshteyn, P. R.; Krisyuk, E. M.; Tikhomirova, H. D. 23

ORG: Leningrad Scientific Research Institute of Radiation Hygiene, Ministry of Public Health, RSFSR (Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR) 19

TITLE: Characteristics of radiation sickness induced by soft rays

SOURCE: Meditsinskaya radiologiya, v. 10, no. 12, 1965, 30-34

TOPIC TAGS: radiation sickness, mouse, xray irradiation, blood, radiation biologic effect

ABSTRACT: The object of the experiments described in this article was to determine the effect of a single sublethal dose of soft rays on the skin, body weight, and leukocyte index of the peripheral blood of irradiated mice. Albino mice of both sexes and 24 to 29 grams in weight were used in the experiments. All of the experimental animals were subjected to the action of x-rays administered in a dose of 4,130 r. A distinct picture of radiation sickness developed in all of the animals, characterized by clearly visible lesions of the skin layers; a decrease in weight averaging 26 percent for the females and 20 percent for the males by the 21st day after the irradiation; a sharp increase in the leukocyte count of the peripheral

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UDC: 617-001.26-092.9

L 28010-66

ACC NR: AP6018198

blood. Observations established that the loss of weight and the increase in the leukocyte count of the peripheral blood coincided with the development of the skin lesions, providing a basis for the premise that they may be associated with the development of the skin affections induced by radiation sickness and marked by skin dehydration and the development of intoxication due to the decomposition of the proteins in the affected areas of the skin. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: 12Aug64 / ORIG REF: 003 / OTH REF: 002

Card

2/2

L 28010-66 EWT(m)

ACC NR: AP6018198

SOURCE CODE: UR/0241/65/010/012/0030/0034

AUTHOR: Liberman, A. N.; Vaynshteyn, P. R.; Krisyuk, E. M.; Tikhomirova, M. D. 23 B

ORG: Leningrad Scientific Research Institute of Radiation Hygiene, Ministry of Public Health, RSFSR (Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR)

TITLE: Characteristics of radiation sickness induced by soft rays 17

SOURCE: Meditsinskaya radiologiya, v. 10, no. 12, 1965, 30-34

TOPIC TAGS: radiation sickness, mouse, xray irradiation, blood, radiation biologic effect

ABSTRACT: The object of the experiments described in this article was to determine the effect of a single sublethal dose of soft rays on the skin, body weight, and leukocyte index of the peripheral blood of irradiated mice. Albino mice of both sexes and 24 to 29 grams in weight were used in the experiments. All of the experimental animals were subjected to the action of x-rays administered in a dose of 4,130 r. A distinct picture of radiation sickness developed in all of the animals, characterized by clearly visible lesions of the skin layers; a decrease in weight averaging 26 percent for the females and 20 percent for the males by the 21st day after the irradiation; a sharp increase in the leukocyte count of the peripheral

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UDC: 612-001.26-092.9 2

L 28010-66

ACC NR: AP6018198

blood. Observations established that the loss of weight and the increase in the leukocyte count of the peripheral blood coincided with the development of the skin lesions, providing a basis for the premise that they may be associated with the development of the skin affections induced by radiation sickness and marked by skin dehydration and the development of intoxication due to the decomposition of the proteins in the affected areas of the skin. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: 12Aug64 / ORIG REF: 003 / OTH REF: 002

Card

2/2

CHEBUKOV, M.F., kand.tekhn.nauk; TIKHOMIROVA, M.F., inzh.

Using lime ash binding material for producing concrete and reinforced concrete. Bet.i zhel.-bet. 9 no.12:551-554 D '63. (MIRA 17:2)

TIKHOMIROVA, M.F., inzh.; NAUMENKO, A.S., inzh.; YANTSEN, T.G., inzh.

Mixed lime-ash cement on a base of ash from electric stations
in the Middle Ural Economic Region. Sbor. trud. Sverd. nauch.-
issl. inst. po stroi. no.10:34-50 '63.

(MIRA 17:10)

22

CA

PROCESSING AND PREPARATION

Preparing formaldehyde by the oxidation of gaseous products of pyrolysis and cracking. M. Tikhomirova. *Azerbaidzhan'skie Neftyanoe Khimichesko* 1934, No. 10, 82-83.—In the oxidation of the ethylene fraction (60% C_2H_4 and 40% CH_4) without preheating the gas mixt., a max. yield of HCHO amtg. to 154 g. per cu. m. of gas was obtained at 440-450°. The yield was only 73 g. when using pure O_2 at 370°. The highest yield when preheating was obtained at 310-320°. The application of a Cu gauze in addn. to V_2O_5 pptd. on asbestos lowered the yield of HCHO. The highest degree of oxidation was obtained in 8-10 recyclings of the gas mixt., addnl. recycling being of little advantage. In oxidizing by the above method unfractionated gas from pyrolyzed or vapor-phase gases, about 70 g. of HCHO per cu. m. of gas was obtained. A. A. Bachtling.

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

100000 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

KURBATOV, A. D., TIKHOMIROVA, M. M.

Sex - Cause and Determination

Basal metabolism in animals and sex of progeny. Agrobiologiya, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

TIKHOMIROVA, M. M.

KURBATOV, A.D.; TIKHOMIROVA, M.M.

Effect of the intensity of basal metabolism in animals on the
ratio of sexes in their progeny. Uch.zap.Len.un. no.165 '53.
(MLRA 7:7)

1. Laboratoriya genetiki zhivotnykh kafedry genetiki i selektsii
(sveduyushchiy kafedroy professor N.V.Turbin)
(Metabolism) (Sex(Biology))

TIKHOMIROVA, M. M.

TIKHOMIROVA, M. M.: "The effect of the intensity and nature of metabolism in animals on the relation between the sexes in the offspring". Leningrad, 1955. Leningrad Order of Lenin State U imeni A. A. Zhdanov. (Dissertations for the Degree of Candidate of Biological Sciences.)

So: Knizhnaya letovis' No. 49, 3 December 1955. Moscow.

BC

117 AND 118 CROSSL

PROCESSING AND PROPERTIES INDEX

119 AND 120 CROSSL

6-1-3

Action of sulphuric acid on gas from cracked
kerosene. V. P. GUM and M. M. TIKHOMIROVA
(Nef. Chet. 1969, 16, 411-413). The gas (heavy
hydrocarbons $33.6\% \text{ CH}_4$, $46\% \text{ H}_2$, $17\% \text{ C}_2\text{H}_6$) after treatment
with sulphuric acid, contained: heavy hydrocarbons
 $34\% \text{ CH}_4$, $54\% \text{ H}_2$, $20\% \text{ C}_2\text{H}_6$, 0.3% being absorbed from each litre.
Acid recovered from sludge was more active than pure
acid. The composition of the oil layer formed on the
acid and its behavior on fractionation are described.
CHEMICAL ABSTRACTS.

COMMON ELEMENTS

COMMON VARIABLE INDEX

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

117 AND 118 CROSSL

119 AND 120 CROSSL

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>ca</p> <p>Formaldehyde obtained in the oxidation of gases produced during pyrolysis and cracking. H. M. M. Tikhonov and V. Monakhova. <i>Aerobialization of Hydrocarbons</i> 1983, No. 6, 79-83; <i>Foreign Petroleum Tech. J.</i> 402-3(1983); cf. C. A. 29, 60337. The oxidation was carried out with air at temps. of 280-340° with a catalyst of V_2O_5 pptd. on asbestos, refractory clay and kaolin. The oxidation of the gas yielded 5-11% formaldehyde, 2-3.5% formic acid and 6-7% acetic acid. Traces of propionic acid also were found in the product of oxidation of the ethylene and propylene fractions; the amt. of propionic acid increased considerably when the propylene-butylene fraction was oxidized. An aldehyde of higher poscn. is obtained on distn. in the presence of $NaCl$, although better results are obtained with $CaCl_2$. The kaolin catalyst carrier was used. A. A. Kuchlinsk</p>										<p>72</p>									
<p>400.514 METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>FROM SYNONYMS</p>										<p>FROM GOWING</p>									
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<p>SYNONYM NO. 99</p>										<p>SYNONYM NO. 100</p>									

TAGEYEVA, N.V.; TIKHOMIROVA, M.M.

Geochemistry of the natural waters of the Uzboy region. Doklady Akad. Nauk
S.S.S.R. 84, 1201-2 '52. (MLRA 5:7)
(CA 47 no.22:12705 '53)

TIKHOMIROVA, M.M., starshiy prepodavatel'.

**"Geodesy." P.V.Denzin. Reviewed by M.M.Tikhomirova. Sbor.
st.po.geod. no.8:93-96 '54. (MIRA 9:6)
(Geodesy) (Denzin, P.V.)**

TIKHOMIROVA, M. M.

62
Geochemistry of the magnesium-sodium chloride waters. N. V. Tagteva and M. M. Tikhomirova. *Doklady Akad. Nauk S.S.S.R.* 96, 121-4 (1964).—Equil. of the reactions of the type $2\text{NaCl (soln.)} + \text{Mg (in country rocks)} \rightleftharpoons \text{MgCl}_2 + \text{Na}$ (in the mineral constituents of colloidal country rocks) have been often discussed to explain the Mg^{++} content of the ocean water. Exptl. studies of the authors on the nature of underground waters demonstrated that the reaction mentioned above is not the most important; they observed (1) an exchange of Na^+ and Ca^{++} in chloride solns. in colloidal surface rocks, followed by the reaction $\text{CaCl}_2 + \text{Mg}(\text{SO}_4(\text{HCO}_3)_2) \rightleftharpoons \text{MgCl}_2 + \text{Ca}(\text{SO}_4(\text{HCO}_3)_2)$, with pptn. of calcite and CaSO_4 . This reaction is characteristic for arid climates, e.g. in the basin of the Caspian Sea, or in the desert of Kara-Kumy. (2) First the equil. of base exchange of Ca sulfate or carbonate with Na-enriched marine sediments, forming Na_2SO_4 and carbonate solutions, which react in a second stage with CaCl_2 to ppt. CaSO_4 and calcite. Ca^{++} thus disappears from the solns., while Mg^{++} from residual/marine brines persists in the waters of the Mg/Na chloride type. Residual brines as mentioned are frequent in the Russian platform in the wide fields between the Ural and the Carpathian Mts. The geochem. coeff. of those waters is the ratio $\text{Mg}(\text{SO}_4(\text{HCO}_3)_2)/\text{MgCl}_2$. The base exchange of sea water with sediments of the continents is especially a $\text{Na}^+ \rightleftharpoons \text{Ca}^{++}$ exchange, and the reaction $\text{CaCl}_2 + \text{MgSO}_4 \rightleftharpoons \text{MgCl}_2 + \text{CaSO}_4$ takes place. The geochem. coefficient is in normal sea water ≈ 0.50 , but much higher in sea water basins surrounded by continents, e.g. ≈ 15.22 for the water of the Caspian Sea. Lake Aral has a sulfatic-sodic compn. type. V. Bittel

Lab. Hydrogeol. Problem
in F. P. Savarensky.

TIKHOMIROVA, M.M.

TAGEYEVA, N.V.; TIKHOMIROVA, M.M.

Certain features in the early diagenesis of sedimentary rocks
in the northwestern regions of the Black Sea. Dokl. AN SSSR
112 no.3:513-515 Ja '57. (MLRA 10:4)

1. Laboratoriya gidrogeologicheskikh problem im. F.P. Savarenskogo
Akademii nauk SSSR. Predstavleno akademikom D.I. Shcherbakovym.
(Black Sea region--Rocks, Sedimentary)

ZYBINA, Ye.V.; TIKHOMIROVA, M.M.

Nature of the sex chromatin. TSitologiya 7 no.5:585-601
S-0 '65. (MIRA 18:12)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR
i kafedra genetiki Leningradskogo universiteta. Submitted
June 30, 1964.

ZYBINA, Ye.V.; TIKHOMIROVA, M.M.

Endomitotic polyploidization of trophoblast giant cells.
Sbor. rab. Inst. tsit. no.5:53-63 '63. (MIRA 17:2)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR
i kafedra genetiki Leningradskogo gosudarstvennogo universiteta.

TIKHOMIROVA, M.M.

Study of the aftereffect of X rays on the primary nondisjunction
of X chromosomes. Trudy MOIP. Otd. biol. 7:198-202 '63.
(MIRA 16:11)

TIKHOMIROVA, M.M.

New data on the maps of general boundary marking of Russia. Sbor.
st.po kart. no.13:101 '61. (MIRA 15:5)

(Geography--Maps)

TAGEYEVA, Nadezhda Viktorovna; TIKHOMIROVA, Mariya Matveyevna;
PEREL'MAN, A.I., doktor geol.-miner. nauk, otv. red.;
FILIPPOVA, B.S., red. izd-va; DOROKHINA, I.N., tekhn. red.

[Geochemistry of the bottom sediments in the Black Sea (north-
western part)] Gidrogeokhimiia donnykh osadkov Chernogo moria
(severo-zapadnaia chast'). Moskva, Izd-vo Akad. nauk SSSR,
1962. 145 p. (MIRA 16:1)

(Black Sea--Deep-sea deposits)
(Geochemistry)

S/169/62/000/010/054/071
D228/D307

AUTHORS: Tagceyeva, N.V., Tikhomirova, M.M. and Korunova, V.V.

TITLE: Water during the diagenesis of marine sediments
(in the example of the northern seas)

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1962, 7,
abstract 10V61 (In collection: Sovrem. osadki morey
i okeanov, M., AN SSSR, 1961, 577-596)

TEXT: Data on the chemical composition of bottom sediments
and the muddy (interstitial) waters held in them are given for the
Central Arctic basin of the Barents, Kara, Chukotsk and Bering Seas.
In comparison with ocean water these latter are enriched in I by
150-200 times, in Zn by 10-15 times, and in Cu, B, K and Br (only
by 10-20%). There is a tendency for the concentration of I and B
to grow in muddy water, and for that of Zn to diminish, as the pH
increases.

[Abstracter's note: Complete translation]

Card 1/1

TIKHOMIROVA, M.M.

Effect of X rays on the nondisjunction of X-chromosomes. Issl.
po gen. no. 1:19-24 '61. (MIRA 15:1)
(X RAYS--PHYSIOLOGICAL EFFECT) (CHROMOSOMES)

TAGEYEVA, N.V.; TIKHOMIROVA, M.M.

Determining the composition of exchange cations in sediments of
the Caspian Sea. Trudy Lab. gidrogeol. probl. 30:48-56 '60.
(MIRA 14:4)

(Caspian Sea—Cations)

TIKHOMIROVA, M.M.

Possibilities of using general boundary maps for the study
of landform dynamics. Vest.Mosk. un. Ser.5: Geog. 15
no.4:38-45 J1 - Ag '60. (MIRA 13:9)

1. Kafedra geodezii i kartografii Moskovskogo universiteta.
(Physical geography—Maps)

TIKHOMIROVA, M.M.; TAGHEYVA, N.V.

Experimental geochemical study of the formation of types of underground waters. Trudy Lab.gidrogeol.probl. 16:261-284 '58, (MIRA 12:2)

1. Laboratoriya gidrogeologicheskikh problem imeni F.P. Savarenskogo AN SSSR.

(Water, Underground)

TIKHOMIROVA, M. M.
RUMANIA / Cosmochemistry, Geochemistry, Hydrochemistry. D

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60537.

Author : N. V. Tageyeva, M. M. Tikhomirova.

Inst : -

Title : Some Features of Early Diagenesis of Deposits in
North-Western Part of Black Sea.

Orig Pub: An. Rom.-Sov. Ser. geol.-geogr., 1958, 12, No 1,
25-28.

Abstract: Translation. See RZhKhim, 1957, 21058.

Card 1/1

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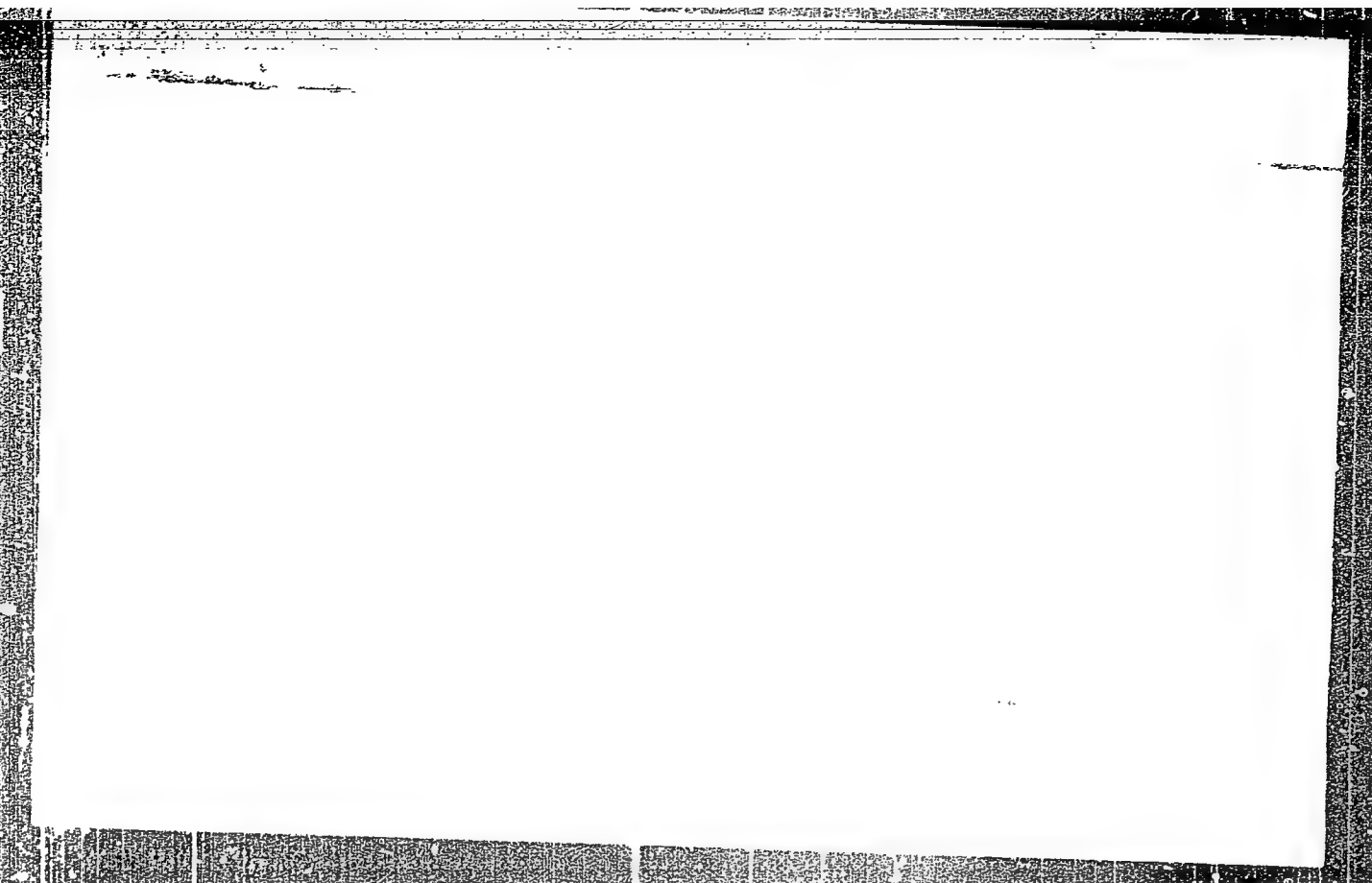
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11/15/85 P. 11/11

APPROVED FOR RELEASE: 07/16/2001

CIA-RDP86-00513R001755610013-2"

Литература, 17-18
KAZAKOV, A.V.; TIKHOMIROVA, M.M.; PLOTNIKOVA, V.I.

Carbonate equilibrium systems (dolomite, magnesite). Trudy Inst.
geol. nauk no.152:13-58 '57. (MLRA 10:9)
(Dolomite) (Magnesite) (Carbonates (Mineralogy))

Tikhomirova 17/11
KAZAKOV, A.V.; TIKHOMIROVA, M.M.; PLOTNIKOVA, V.I.

The $\text{FeO--CO}_2\text{--H}_2\text{O}$ system and conclusions drawn from the paragenesis of siderites and phosphorites. Trudy Inst. geol. nauk no.152:59-71 '57.

(MLRA 10:9)

(Siderite) (Phosphorites)

TAGEYEVA, Nadezhda Viktorovna; ~~TIKHOMIROVA~~, Mariya Matveyevna;
TEODOROVICH, G.I., doktor geol.-min. nauk, otv. red.;
FILIPPOVA, B.S., red. izd-va; PRUSAKOVA, T.A., tekhn. red.

[Geochemistry of interstitial waters in the diagenesis of marine
sediments; as revealed by the study of sediments in the Caspian
Sea] Geokhimiia porovykh vod pri diageneze morskikh osadkov; na
primere osadkov Kaspiiskogo moria. Moskva, Izd-vo Akad. nauk
SSSR, 1962. 244 p. (MIRA 15:7)
(Caspian Sea--Deep-sea deposits)

TIKHOMIROVA, M.M.

Nondisjunction of chromosomes following X-ray irradiation of different wave length and intensity. Issl. po gen. no.2:56-64 '64.
(MIRA 18:4)

TIKHOMIROVA, M.M.; DUBROVA, S.Ye.; YANUSH, I.M.

Comparative study of radiation aftereffect on the nondisjunction
of chromosomes. Issl. po gen. no.2:65-68 '64. (MIRA 18:4)

GTRSP L No. 45

Fernikova, I.I. and Tikhomolova, M.P. (A. V. Zhdanov Leningrad State University). The structure of Butlerov's oxocetenol $(CH_3)_3C-CO-C(OH)(CH_3)_2$. 611-6

Akademiya Nauk S.S.S.R., Doklady Vol. 79 No. 4

Dehydration of castor oil with the aid of acid catalysts. V. Varianov and N. Tikhomirova. *Moskovskoe Khimicheskoe Delo* 10, No. 1, 22-5 (1949).² The dehydration of refined castor oil in the presence of 0.5% H_2SO_4 and H_3PO_4 and the α -Al salts begins at 165° and proceeds energetically at 180-225°. Complete dehydration is best effected with the catalysts in 2% soln. in H_2O by heating at 240° for 5 hrs. The resulting oil is free from the acid catalysts, has low acidity, pale color, low viscosity and d. In its drying properties it compares satisfactorily with linseed oil.

Chas. Blane

Chas. Blanc

A 50-51 A METALLURGICAL LITERATURE CLASSIFICATION

ROMANTSEV, Ye.F.; TIKHOMIROVA, M.V.

Protection of animals from gamma rays with the help of some
aminophenones. Radiobiologiya 3 no.1:126-129 '63.

(MIRA 16:2)

(GAMMA RAYS--SAFETY MEASURES) (PROPIOPHENONE)
(ACETOPHENONE) (BUTYROPHENONE)

TIKHOMIROVA, M.V.; YEVSEYEVA, N.K.; SHISHAKOVA, I.A. (Moskva)

Amount of copper in the blood of animals during subacute radiation
injury. Pat. fiziol. i eksp. terap. 5 no.4:69-70 J1-Ag '61.

(MIRA 14:9)

(COPPER IN THE BODY)

(RADIATION SICKNESS)

TIKHOMIROVA, N.

Reliable helpers. NTO 4 no.1:25-26 Ja '62.

(MIRA 15:1)

1. Uchyny sekretar' Leningradskogo oblastnogo soveta nauchno-
tekhnicheskikh obshchestv.

(Leningrad Province--Research, Industrial)

SOKHRINA, Raisa Fedorovna, nauchnyy sotrudnik; CHELPANOVA, Ol'ga Mikhaylovna, kand.geogr.nauk; SHAROVA, Valeriya Yakovlevna, kand.geogr.nauk. Prinimali uchastiye: RUBINSHTEYN, Ye.S., prof.; DROZDOV, O.A., prof., doktor geografiy.nauk, red.; PRIK, Z.M.; PISAREVA, G.P., nauchnyy sotrudnik; GALINA, M.B.; KOSENKOVA, Z.D.; TIKHO-MIROVA, N.A.; FEDOSEYEVA, G.N.; POKROVSKAYA, T.V., kand.geograf.nauk, red.; PISAREVSKAYA, V.D., red.; VOLKOV, N.V., tekhn.red.

[Air pressure, air temperature and atmospheric precipitation in the Northern Hemisphere] Davlenie vozdukha, temperatura vozdukha i atmosferynye osadki severnogo polushariya. Pod red. O.A.Drozdova i T.V.Pokrovskoi. Leningrad, Gidrometeor.izd-vo, 1959. 473 p. [Atlas of charts] Atlas kart. (MIRA 13:4)
(Meteorology--Charts, diagrams, etc.)

UFLYAND, Yu. M.; TIKHOMIROVA, N. A.; FARFEL', M. N.

Fifty years of activity for the Department of Physiology of the
Leningrad Sanitary Hygienic Medical Institute. Trudy LSGMI 64:
7-39 '61. (MIRA 15:7)

(PHYSIOLOGY)

TIKHOMIROVA, N. A.

Effect of local cooling on the state of the neuromuscular system.
Trudy ISGMI 64:236-246 '61. (MIRA 15:7)

1. Kafedra fiziologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta. Zav. kafedroy - prof. Yu. M. Uflyand.

(COLD—PHYSIOLOGICAL EFFECT)
(NERVOUS SYSTEM)
(MUSCLES)

TIKHOMIROVA, N. A.

Contractile ability of muscles during their cooling. Trudy
LSGMI 64:247-258 '61. (MIRA 15:7)

1. Kafedra fiziologii Leningradskogo sanitarno-gigiyenicheskogo
meditsinskogo instituta. Zav. kafedroy - prof. Yu. M. Uflyand.

(MUSCLES--MOTILITY)
(COLD--PHYSIOLOGICAL EFFECT)

TIKHOMIROVA, N. A.

State of cooled muscles in the varying excitability of the nerve centers. Trudy LSGMI 64:299-306 '61. (MIRA 15:7)

1. Kafedra fiziologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta. Zav. kafedroy - prof. Yu. M. Uflyand.

(COLD—PHYSIOLOGICAL EFFECT)
(MUSCLES—INNERVATION)

STISHOV, S.M.; TIKHOMIROVA, N.A.

Phase diagram for tellurium. Zhur. eksp. i teor. fiz. 49 no.2:
618-620 Ag '65. (MIRA 18:9)

1. Institut kristallografii AN SSSR.

L 44731-66 EWT(m)/EWP(t)/ETI LJP(c) ID/MM/JG
 ACC NR: AP6031982 SOURCE CODE: UR/0386/66/004/005/0161/0164

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.; Tonkov, Ye. Yu.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografi
 Akademii nauk SSSR)

TITLE: The maximum on the melting curve of tellurium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.
 Prilozheniye, v. 4, no. 5, 1966, 161-164

TOPIC TAGS: tellurium, melting point, phase transition, pressure effect, high pressure
 research

ABSTRACT: The purpose of the investigation was to ascertain whether the compression
 curve of melting liquid tellurium is perfectly smooth in the region of the maximum
 observed on its melting curve, or whether it has some singularities pointing to the
 localization of this anomaly in a definite region of pressures and temperatures. To
 this end, the authors continued their earlier work (ZhETF v. 49, 618, 1965) and made
 a detailed study of the melting curve of tellurium, from which they deduced a localized
 change in the properties of liquid tellurium along the melting curve. The pressure
 was produced by compressing gasoline or silicone oil in a high-pressure multiplier,
 and was measured with a manganin manometer accurate to 50 kg/cm². The temperature was
 measured with a chromel-alumel thermocouple accurate to 0.2C. The purity of the in-
 vestigated tellurium was 99.999%. The melting curve of tellurium was plotted up to
 18,000 kg/cm². The curve showed three distinct sections: initial, up to ~3800 kg/cm²,

Card 1/2

L 04/87-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/WW/AT

ACC NR: AP6024469

SOURCE CODE: UR/0181/66/008/007/2084/2086

AUTHOR: Gulyamov, K.; Tikhomirova, N. A.; Turyanitsa, I. D.; Fridkin, V. M. ²⁷

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografii AN SSSR) ²⁷

TITLE: Photoconductivity of SbI₃ and BiI₃ single crystals at high hydrostatic pressures ^{27 27 27 16}

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2084-2086

TOPIC TAGS: photoconductivity, spectral distribution, antimony compound, bismuth compound, iodide, forbidden band, pressure effect, carrier lifetime, electron recombination

ABSTRACT: Rhombohedral crystals were grown from the gas phase in the form of plates measuring 0.1 x 0.5 cm and their photoconductivity was investigated at pressures up to 14,000 atmospheres at room temperature. The measurements were made in a high-pressure multiplier using a procedure described earlier (FTT v. 7, 1037, 1965 and earlier). The tests yielded plots of the spectral distribution of the photocurrent, the variation of the width of the forbidden gap with pressure, and the pressure dependence of the relative density of the dark current. The tests have shown that the maxima of the spectral distribution of the photocurrent shifts toward longer wavelengths for both crystals. The pressure dependence of the photocurrent was also measured. In SbI₃ a strong increase in the photocurrent is accompanied also by an increase in the dark current, whereas in BiI₃ the dark current decreases under pressure.

Card 1/2

L 04787-67

ACC NR: AP6024469

while the photocurrent increases slowly. The observed increase in photocurrent is explained in accordance with a mechanism proposed in the earlier papers, wherein the increase in the photocurrent is due to the increase of the lifetime of the nonequilibrium carriers, which in turn is due to the change in the distance between the Fermi level and the recombination level. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 20/ SUBM DATE: 10Dec65/ ORIG REF: 003/ OTH REF: 002

Card 2/2

STISHOV, S.M.; TIKHOMIROVA, N.A.

Methods for leading thermocouples into high-pressure chambers.
Prib. i tekhn. eksp. 10 no.5:251 S-O '65.

(MIRA 19:1)

1. Institut kristallografi AN SSSR, Moskva. Submitted Sept.4,
1964.

SPISHOV, S.M.; TIKHOMIROVA, N.A.

Melting curves for bismuth telluride (Bi_2Te_3) and antimony telluride (Sb_2Te_3) at high pressures. Pis'. v red. Zhur. eksper. i teor. fiz. 1 no.1:20-22 Ap '65. (MIRA 18:9)

1. Institut kristallografii AN SSSR.

1 8618-66 ~~SECRET~~ (S) (J) (T) (C) (A) ~~RM/WM~~
~~REC NR~~ AP5027048 SOURCE CODE: UR/0120/65/000/005/0251/0251

AUTHOR: Stishov, S. M.; Tikhomirova, N. A. 44,55

ORIG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografi AN SSSR) 44,55 68 B

TITLE: Methods for thermocouple introduction into high pressure chambers

SOURCE: Pribery i tekhnika eksperimenta, no.5, 1965, 251

TOPIC TAGS: thermocouple, temperature measurement, high pressure chamber, measuring instrument 9M

ABSTRACT: The highest experimental errors during temperature measurements in internally heated high-pressure chambers are due to additional thermal emf's generated at the junctions between thermocouple terminals and the steel connectors. The authors found that Chromel and Alumel cones with 12° opening angle and bases with 2.5 and 1.2 mm in diameter can successfully withstand hydrostatic pressures up to 30 katm and can survive numerous load cycles. A second method used introduces connector wires through epoxy resin gaskets. This alternate method is employed and successfully tested under pressures up to ~ 25 katm. A third method, using the compensation of the additional emf's is also described. Tests show that parasitic emf's do not exceed 0.01 mv, which for a chromel-alumel thermocouple corresponds to less than 0.25C. Orig. art. has: 1 figure.

UDC: 536.532:539.89

SUB CODE: TD / SUBM DATE: 04Sep64 / OTH REF: 003

Card 1/1 jrn

L 9259-66 EWT(1)/EWT(m)/EPF(n)-2/EWA(d)/EWP(t)/T/EWP(k)/EWP(b)/EWA(c) IJP(c)
 ACC NR: AP5022712 JD/WM/IEI/GG/AT SOURCE CODE: UR/0181/65/007/009/2723/2725

AUTHOR: Gulyamov, K.; Tikhomirova, N. A.; Turyanitsa, I. D.; Fridkin, V. M.

ORG: Institute of Crystallography AN SSSR, Moscow (Institut kristallografii AN SSSR)

TITLE: Photoconductivity of HgI₂ single crystals under high hydrostatic pressures

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2723-2725

TOPIC TAGS: mercury compound, iodide, single crystal, photoconductivity, pressure effect, high pressure research

ABSTRACT: Photocurrent was studied as a function of pressure up to 17,000 atmospheres at room temperature in single crystals of HgI₂. Measurements were made on tetragonal single crystals (red mercuric iodide) grown from solution. Curves are given showing photocurrent as a function of incident wavelength for various hydrostatic pressures. The long-wave maximum corresponding to the fundamental absorption edge is shifted into the longer wave region as the pressure is increased. This maximum is located at 580 mμ ($E_g = 2.14$ ev) at atmospheric pressure. The change in energy with pressure conforms to the law $dE_g/dP = -(9 \pm 0.7) \cdot 10^{-6}$ ev/at. The photocurrent first decreases with pressure increase, passing through a minimum in the neighborhood of 700 atmospheres, and then increases with pressure up to 12,000 atmospheres. At about 13,000 atmospheres, a phase transition is observed which is accompanied by a drop in photo-

Card 1/2

L 9259-66

ACC NR: AP5022712

current. Thus the minimum at 7000 atmospheres is not due to a phase transition and is apparently caused by a change in carrier lifetime. This hypothesis is used as a basis for a model explaining the complex relationship between photocurrent and pressure for this compound. Orig. art. has: 4 figures, 2 formulas.

SUB CODE: 20,07/

SUBM DATE: 01Apr65/

ORIG REF: 005/

OTH REF: 004

Card 2/2 *per*

129-58-8-4/16
AUTHORS: Tikhomirov, A. V., Sukhobokova, N. V. and Tikhomirova, N.A.
Engineers

TITLE: Embrittlement of the Steel 20KhN14S2 During the Process
of Ageing at 500 to 650°C (Okhrupchivaniye stali
20KhN14S2 v protsesse stareniya pri 500-650°C)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 8,
pp 22-25 + 1 plate (USSR)

ABSTRACT: Austenitic stainless steels which are used for components
operating inside corrosive media at elevated temperatures
should be stable against inter-crystallite corrosion and
possess sufficiently high mechanical properties during
the entire service life. However, almost all the steels
of this class are subjected to varying degrees of
dispersion hardening which brings about embrittlement and
inclination to develop inter-crystallite corrosion. The
authors investigated the stability of the Soviet steel
20KhN14S2 which is used as material for special power
generation equipment; the chemical analyses of the
experimental melts were as follows:

No.25557 - 0.08% C, 2.35% Si, 0.93% Mn, 20.2% Cr,
13.23% Ni, 0.013% S, 0.025% P.
No.25622 - 0.08% C, 2.83% Si, 1.14% Mn, 21.10% Cr,
13.24% Ni, 0.012% S, 0.022% P.

Card 1/3

129-58-8-4/16

Embrittlement of the Steel 20KhN14S2 During the Process of Ageing at 500 to 650°C

It was found that, compared with the austenised state, preliminary stabilisation only brings about a conservation of the properties during ageing at a certain level but does not influence the reduction or the increase in the degree of embrittlement. The change of the impact strength of stainless steels with a tendency to embrittlement during ageing appears to comply with a definite relation.

An analogous relation (decrease of the impact strength during ageing) was found to exist for the Steel EI448 investigated at the Central Works Laboratory of the imeni S. Ordzhonikidze Works. On the basis of the obtained results the authors arrived at the following conclusions:

1) During ageing in the temperature range 500 to 650°C the investigated steel has a tendency to embrittlement, thus reducing the ductility and particularly the impact strength.

2) The greatest reduction in the impact strength at a certain temperature takes place at the initial period of ageing, i.e. during the first 200 to 300 hours. During

Card 2/3

129-58-8-4/16

Embrittlement of the Steel 20KhN14S2 During the Process of Ageing at 500 to 650°C

the further ageing the decrease in the impact strength is less intensive.

3) Stabilisation of the investigated steel after hardening does not influence appreciably the process of ageing. The final degree of embrittlement is practically equal in the case of hardening for obtaining austenite as well as in the case of hardening followed by stabilisation.

4) The investigated steel showed a tendency to inter-crystallite corrosion in tests carried out according to the method A-2 of the specifications GOST-6032-51.

There are 6 figures and 1 table.

ASSOCIATION: Podol'skiy mashinostroitel'nyy zavod imeni Ordzhonikidze (Podol'sk Engineering Works imeni Ordzhonikidze)

1. Stainless steel--Hardening 2. Stainless steel--Properties
Card 3/3 3. Stainless steel--Test results

84127

S/070/60/005/005/016/017

E132/E360

9.6/80

AUTHORS: Tikhomirova, N.A., Zalesskiy, A.V. and
Tambovtsev, D.A.

TITLE: The Application of Strain Gauges for Measuring the
Compressibility of Solid Bodies at High Hydrostatic
Pressures

PERIODICAL: Kristallografiya, 1960, Vol. 5, No. 5,
pp. 823 - 825

TEXT: X-ray and thermographic methods of detecting phase
transitions under very high pressures are technically very
complicated and it has been shown that it is sufficient for
the detection of first- and second-order phase transitions to
measure compressibility as a function of pressure. The
difficulty is then to provide a sufficiently sensitive pressure
gauge. Here, a method of measuring the changes in the linear
dimensions of a specimen is described. A strain gauge is
cemented to the specimen in the pressure chamber which is filled
with isopentane or benzol B-70 and changes in length of 0.0001%
can be detected. The high pressure in the bomb is supplied by
a multiplier and may reach 20 000 kg/cm². The pressure₂ is read from
a manganin pressure gauge to an accuracy of 100 kg/cm². The
Card 1/2

84127
S/070/60/005/005/016/017
E132/E360

The Application of Strain Gauges for Measuring the Compressibility of Solid Bodies at High Hydrostatic Pressures

resistance of the two gauges is measured with simple Wheatstone bridges. Only three electrical lead-throughs into the pressure vessel are required. The pressure dependence of the resistance of the strain gauge and the other leads in the absence of a specimen has to be determined by a separate calibration. The correction amounts to about 4 ohms in 100. Compressibility curves for CsI, NaCl, LiF, Fe and a low-compressibility alloy T15K6 are reproduced and compared with Bridgman's figures. The accuracy appears to be high. It is intended to apply the method further for measuring anisotropic compressibilities which could not be studied by Bridgman's technique. There are 3 figures and 9 references: 5 Soviet and 4 English.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography of the AS USSR)


SUBMITTED: February 16, 1960

Card 2/2

S/070/62/007/005/012/014
E132/E460

AUTHORS: Zheludev, I.S., Tikhomirova, N.A., Fridkin, V.M.
TITLE: The ferroelectric properties of triglycine sulphate
under high hydrostatic pressure
PERIODICAL: Kristallografiya, v.7, no.5, 1962, 795-797

TEXT: The conductivity and ferroelectric properties of crystals of triglycine sulphate have been measured under hydrostatic pressures of up to 25000 atm. The pressure was applied in a multiplier, isopentane being used to transmit the pressure, which was measured with a manganin resistance manometer to an accuracy of 100 kg/cm². The temperature was controlled to 1°C and the hysteresis loop at 50 c/s was recorded together with the susceptibility at 800 c/s. With increasing pressure the height of the loop (spontaneous polarization) decreases by a factor of 3 at the highest pressure and the coercive field increases slightly. The dielectric constant decreased monotonically with pressure to about 50% of its value at atmospheric pressure. The reverse current increased by a factor of about 2 and the Curie temperature rose by 1.6×10^{-3} °C/atm. The results show that at
Card 1/2



The ferroelectric properties ...

S/070/62/007/005/012/014
E132/E460

superhigh pressures the orientation of the domains is hindered
and adsorption gives place to electroconductivity, ionic or
electronic. There are 4 figures. ✓

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography AS USSR)

SUBMITTED: December 20, 1961

Card 2/2

TIKHOMIROVA, N.A.; STISHOV, S.M.

Melting curve of tellurium at pressures up to 23,000 kg./cm².
Zhur.eksp.i teor.fiz. 43 no.6:2321 D '62. (MIRA 16:1)

1. Institut kristallografii AN SSSR.
(Melting points) (Tellurium) (High-pressure research)

L 19567-63

ACCESSION NR: AP3007519

EWP(q)/EWT(m)/EWP(B)/BDS AFFTC/ASD JD
S/0181/63/005/009/2709/2711

AUTHOR: Tikhomirova, N. A.; Fridkin, V. M.

TITLE: Photoconductivity of sulfur single crystals at high hydro-
static pressures

SOURCE: Fizika tverdogo tela, v. 5, no. 9, 1963, 2709-2711

TOPIC TAGS: sulfur photoconductivity pressure dependence, sulfur
single crystal photoconductivity, sulfur photoconductivity, crystal
photoconductivity

ABSTRACT: A strong increase in the photoconductivity of sulfur
single crystals under pressures up to 10,000 atm in an environment
of isopentane was observed and investigated. Specimens in the form
of plates about 1 mm thick and 0.5 cm square were placed in a conden-
ser and illuminated through a quartz window by an incandescent lamp
outside the pressure chamber. The resulting longitudinal photocur-
rent was plotted against applied voltage at various pressures, and
the pressure dependence of the photocurrent was seen to be nearly
exponential. The voltage dependence of the photocurrent turns non-
linear at high pressures and tends to saturation at high field

Card 1/2

L 19567-63

ACCESSION NR: AP3007519

intensities. These phenomena demonstrate an increase in carrier life and an increase of the stationary secondary photocurrent through the crystal. The measurements of the dependence of the photodepolarization current on the illumination time of the crystal in an electric field revealed that the dependence is exponential and that the saturation level rises with the pressure. It is noted that the relaxation time is nearly independent of the pressure, since the secondary photocurrent apparently does not substantially affect the kinetics of photopolarization. It is concluded that even an insignificant narrowing of the forbidden zone under pressure may result in a sizeable change of lifetime of photocurrent carriers, which is supported by Rose phenomenology theory. Orig. art. has: 2 figures.

ASSOCIATION: Institut kristallografii AN SSSR, Moscow (Institute of Crystallography, AN SSSR)

SUBMITTED: 22Apr63

DATE ACQ: 14Oct63

ENCL: 00

SUB CODE: PH

NO REF SOV: 003

OTHER: 005

Card 2/2

SHAKH MURRAY, G.P. TIFENBERGLOVA, N.A.

Window for optical observations
tekh. eksp. 8 no.6:191 M-B '63.

1. Institut kristallografi! Ak " " " .

L 38892-66

EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6018559

SOURCE CODE: UR/0181/66/008/006/1907/1909

AUTHOR: Fridkin, V. M.; Gulyamov, K.; Lyakhovitskaya, V. A.; Nosov, V. N.; Tikhomirova, N. A.

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografi AN SSSR)

TITLE: Anomaly of optical properties of ferroelectric SbSI in the phase-transition region

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1907-1909

TOPIC TAGS: antimony compound, phase transition, Curie point, ferroelectric property, forbidden band, pressure effect, paraelectricity, electron interaction, phonon interaction, temperature dependence, absorption edge, *optic property*

ABSTRACT: This is a continuation of earlier work (DAN SSSR v. 161, 1060, 1965), where an anomalously large shift of the intrinsic-absorption edge was observed in SbSI single crystals with increasing pressure. The present study is devoted to a more detailed investigation of this shift, and discloses that the anomaly appears only in the vicinity of the phase transition. The authors measured the dependence of the width of the forbidden band E_g on the hydrostatic pressure p and the temperature T in the phase-transition region. The crystals were grown from the gas phase, the width of the forbidden band was determined by measuring the shift of the maximum of the photocurrent, and the high pressure was produced with apparatus described elsewhere (FTT v. 7, 4, 1965). The pressure was measured with a resistance manometer and the temperature was

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L 38892-66

ACC NR: AP6018559

measured in a vacuum thermostat. The results show that in the vicinity of the Curie point the values of dE_g/dT and $(\partial E_g/\partial p)_T$ became anomalously large. Away from the phase-transition point, the variation of E_g is the same as determined by the direct electron-phonon interaction $dE_g/dT \approx (\partial E_g/\partial T)_V$, whereas in the phase transition region dE_g/dT is determined by the temperature expansion of the crystal and $dE_g/dT \gg (\partial E_g/\partial T)_V$. On going from the ferroelectric into the paraelectric region, the electron-phonon interaction terms decreases in absolute value by a factor of almost 2. The authors thank V. L. Bonch-Bruyevich, R. A. Suris, and A. P. Levanyuk for a discussion of certain results obtained in the present work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 07Jul65/ ORIG REF: 002/ OTH REF: 003

Card: 2/2/14P

L 5207-6

ACCESSION NR: AP5010527

tures. The thermal effect of this transformation is apparently very small. It is assumed that the observed triple point is the point of intersection of the melting curve of the solid with the liquidus line. The melting curve of the solid is a straight line with a negative slope. The liquidus line is a curve with a positive slope. The intersection of these two lines is the triple point. The melting curve of the solid is a straight line with a negative slope. The liquidus line is a curve with a positive slope. The intersection of these two lines is the triple point.

Orig. art. has: 2 figures.

ASSOCIATION: Institut kristallografi Akademii nauk SSSR (Institute of Crystallography, Academy of Sciences, SSSR)

SUBMITTED: 29 Jan 65

ENCL: 00

BUR CODE: 88

NR REF SOV: 002

OTHER: 002

LL
Card 2/2

ACCESSION NR: AP5011525

UR/0020/65/101/005/101/101

AUTHORS: Polyakov, K.; Lyakhovitskaya, V. A.; Tikhomirova, N. A.;
Fridkin, V. M.

TITLE: Anomalous large effect of pressure on the critical and ferroelectric properties of SbSI single crystals.

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1060-1062

TOPIC TAGS: antimony compound, single crystal, ferroelectric property, pressure dependence, Curie point, electric field dependence

ABSTRACT: Earlier investigations of the optical and ferroelectric properties of SbSI single crystals have led to the conclusion that the coefficient $\frac{d\epsilon}{dp}$ (with ϵ the dielectric permittivity, p the pressure) has an anomalously large value. To check on this assumption, experiments have been undertaken to determine $\frac{d\epsilon}{dp}$ directly by the method of the piezoelectric effect. The results show that under the conditions of the experiment the coefficient $\frac{d\epsilon}{dp}$ is indeed anomalously large.

See also

Card 1/3

L 58927-65

ACCESSION NR: AP5011525

an anomalously large shift of the edge of intrinsic absorption and
of the Debye temperature with increasing pressure. The experimental re-

port was published in the journal "Solid State Physics" (USSR) 1964, Vol. 11, No. 1, p. 117. The figures

ASSOCIATION: Institute of Crystallography, AN SSSR (Institute of Cry-
stallography AN SSSR)

SUBMITTED: 27 JAN 65

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ENCLOSURE: 01

ACCESSION NR: AP5011525

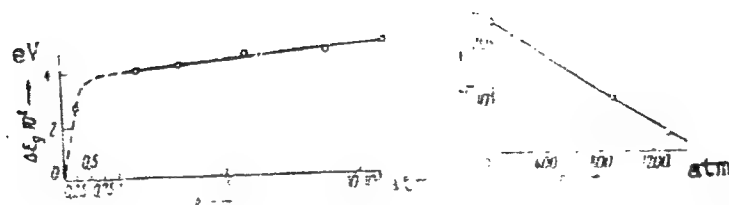


Fig. 1. Pressure variation of the width of the forbidden band (left) and of the Curie temperature (right) in single-crystal SbSI.

Card 3/3

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.

TITLE: Phase diagram of tellurium.

SOURCE: Zhurnal Khimicheskoi Fiziki, 1964, 34, 1, 1-10.
61A-620

TRANSLATION OF: 1964, 34, 1, 1-10.

A Russian language journal article.

1. The phase diagram of tellurium is shown.

2. The diagram is based on experimental data.

3. The diagram is presented in the form of a graph.

thus revealing for the first time the existence of a new phase of tellurium.
The authors are grateful to the Ministry of Higher Education of the USSR for the support of this work.

1964

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CIA-RDP86-00513R001755610013-2"

1. 58507-01
RDA 12/74

ACCESSION NR: AP5013666

UR/C386/65/001/001/0020/0022

AUTHOR: Stishov, S. M.; Tikhomirova, N. A.

TITLE: Melting curves of bismuth telluride and antimony telluride at high pressures

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prikladyeniye, v. 1, no. 1, 1965, 20-22

TOPIC TAGS: bismuth telluride, antimony telluride, melting curve, pressure dependence, phase transition

ABSTRACT: To confirm the evidence that Bi_2Te_3 becomes metallic under pressure (Ye. S. Izskevich, S. V. Popova, and E. Ia. Atabayeva, DAN SSSR v. 153, 306, 1963), and clarify the details of this transition, the authors investigated, by the thermal analysis method, the phase diagrams of Bi_2Te_3 and Sb_2Te_3 under hydrostatic pressures up to 25,000 kg/cm². The temperature and pressure were measured accurate to $\pm 0.5^\circ\text{C}$ and ± 75 kg/cm², respectively. The melting curves of Bi_2Te_3 and Sb_2Te_3 have maxima at 603.30 and 16,000 kg/cm² for Bi_2Te_3 and 601.30 and 15,000 kg/cm² for Sb_2Te_3 . In addition to the maxima, both curves exhibit kinks which obviously re-

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L 58567-65

ACCESSION NR: AP5013666

present ternary points corresponding to the crossing of the melting curves and the lines of phase transition into the solid state. However, the phase transitions themselves were not registered, probably because the heats of the transitions were too low. "The authors thank L. V. Poretskaya for graciously furnishing the antimony telluride sample." Orig. art. has: 1 figure.

ASSOCIATION: Institut Kristallografi Akademii nauk SSSR (Institute of Crystallography, Academy of Sciences, SSSR)

SUBMITTED: 05Feb65

ENCL: 00

SUB CODE: GP, IC

NR REF SOV: 001

OTHER: 000

12514-02

15/11/65/007/004/1037/1042

ACCESSION NR: AP0010708

AUTHOR: Gulyamov, K.; Tikhomirova, N. A.; Fridkin, V. M.

TITLE: Effect of high hydrostatic pressure on the photoconductivity of CdS single crystals

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1037-1042

TOPIC TAGS: cadmium sulfide, hydrostatic pressure, photoconductivity, nonequilibrium carrier, carrier lifetime

ABSTRACT: The purpose of the investigation was to make direct measurements of the lifetimes of the carriers as a function of the pressure, and to obtain a quantitative estimate of the contribution of the nonequilibrium carriers to the photoconductivity. Measurements were made in the pressure interval 0-2100 atm. A standard test procedure was used. The theory underlying the determination of the true and phenomenological lifetimes of non-equilibrium carriers as functions of the pressure is briefly pre-

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ACCESSION NR: AP5010708

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sented. The test results show that the variation of the photoconductivity with pressure is due to changes in both the true and thermal lifetimes of the carriers. The information concerning the variation of the photoconductivity with pressure is given because of the rather large variation of the photoconductivity with pressure. The figures show the variation of the photoconductivity with pressure.

Author: Institut kristallografiy AN SSSR, Moscow (Institute of Crystallography of USSR)

SUBMITTED: 1964

ENCL: 01

SUR CODE: SS

REF: 001

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Card 2/3